

10/030,928

=> file caplus

FILE 'CAPLUS' ENTERED AT 11:05:27 ON 27 SEP 2002

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FILE COVERS 1907 - 27 Sep 2002 VOL 137 ISS 14

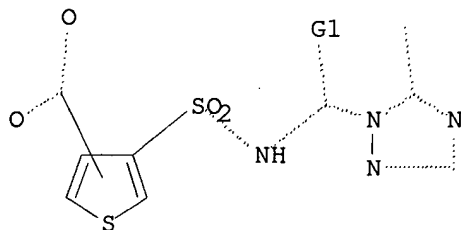
FILE LAST UPDATED: 26 Sep 2002 (20020926/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

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L1 .STR



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Structure attributes must be viewed using STN Express query preparation.

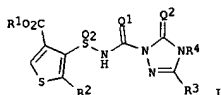
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L4 12 SEA FILE=CAPLUS L3

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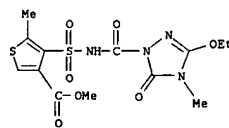
L4 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2002 ACS  
 ACCESSION NUMBER: 2001:45042 CAPLUS  
 DOCUMENT NUMBER: 134:86263  
 TITLE: Preparation of thien-3-ylsulfonfylamino(thio)carbonyltriazolin(thio)ones as herbicides.  
 INVENTOR(S): Gering, Ernst R. F.; Kluth, Joachim; Mueller, Klaus-Helmut; Drewes, Mark Wilhelm; Dahmen, Peter; Feucht, Dieter; Pontzen, Rolf  
 PATENT ASSIGNEE(S): Bayer A.-G., Germany  
 SOURCE: Ger. Offen., 22 pp.  
 DOCUMENT TYPE: CODEN: GWXXBX  
 LANGUAGE: Patent  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19933260	A1	20010118	DE 1999-19933260	19990715
WO 2001005788	A1	20010125	WO 2000-EP6276	20000704
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
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EP 1200426	A1	20020502	EP 2000-947925	20000704
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PRIORITY APPL. INFO.: DE 1999-19933260 A 19990715 WO 2000-EP6276 W 20000704				
OTHER SOURCE(S): MARPAT 134:86263				

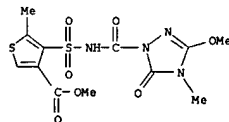


AB Title compds. [I; Q1, Q2 = O, S; R1 = (substituted) alkyl, alkenyl, cycloalkyl, aryl, etc.; R2 = H, cyano, NO2, halo, (substituted) alkyl, alkoxy, alkoxycarbonyl, alkylthio, etc.; R3 = H, cyano, OH, SH, amino, cyano, halo, (substituted) alkyl, alkenyl, alkynyl, alkoxy, alkylthio, etc.; R4 = H, OH, amino, cyano, alkylidenamino, (substituted) alkyl, alkenyl, alkynyl, alkoxy, etc.; or R3R4 = (branched) alkanediyl], and salts thereof, were prepd. as herbicides (no data). Thus, 5-ethoxy-4-methyl-2-phenoxycarbonyl-2,4-dihydro-3H-1,2,4-triazol-3-one in

L4 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)  
 MeCN was treated portionwise with 4-methoxycarbonyl-2-methylthiophenyl-3-sulfonamide (prepn. given) and DBU followed by 12 h stirring to give 60% I [Q1 = Q2 = O, S; R1 = R2 = R4 = Me; R3 = Et]. I were said to show very strong herbicidal activity combined with good crop tolerance.  
 IT 317815-82-0P 317815-83-1P 317815-84-2P  
 317815-85-3P 317815-86-4P 317815-87-5P  
 317815-88-6P 317815-89-7P 317815-90-0P  
 317815-91-1P 317815-92-2P 317815-93-3P  
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of thien-3-ylsulfonfylamino(thio)carbonyltriazolin(thio)ones as herbicides)  
 RN 317815-82-0 CAPLUS  
 CN 3-Thiophenecarboxylic acid, 4-[[[(3-ethoxy-4,5-dihydro-4-methyl-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-5-methyl-, methyl ester (9CI) (CA INDEX NAME)

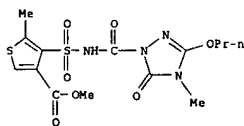


RN 317815-83-1 CAPLUS  
 CN 3-Thiophenecarboxylic acid, 4-[[[(4,5-dihydro-3-methoxy-4-methyl-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-5-methyl-, methyl ester (9CI) (CA INDEX NAME)

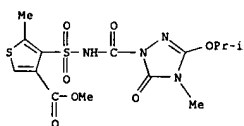


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 CN 3-Thiophenecarboxylic acid, 4-[[[(4,5-dihydro-4-methyl-5-oxo-3-propoxy-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-5-methyl-, methyl ester (9CI) (CA INDEX NAME)

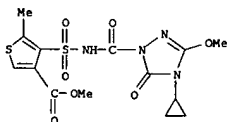
L4 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)



RN 317815-85-3 CAPLUS  
 CN 3-Thiophenecarboxylic acid, 4-[[[(4,5-dihydro-4-methyl-3-(1-methylethoxy)-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-5-methyl-, methyl ester (9CI) (CA INDEX NAME)

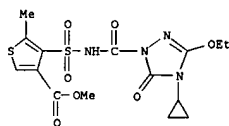


RN 317815-86-4 CAPLUS  
 CN 3-Thiophenecarboxylic acid, 4-[[[(4-cyclopropyl-4,5-dihydro-3-methoxy-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-5-methyl-, methyl ester (9CI) (CA INDEX NAME)

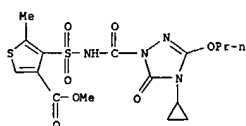


RN 317815-87-5 CAPLUS  
 CN 3-Thiophenecarboxylic acid, 4-[[[(4-cyclopropyl-3-ethoxy-4,5-dihydro-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-5-methyl-, methyl ester (9CI) (CA INDEX NAME)

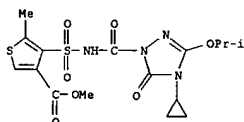
L4 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)



RN 317815-88-6 CAPLUS  
 CN 3-Thiophenecarboxylic acid, 4-[[[(4-cyclopropyl-4,5-dihydro-5-oxo-3-propoxy-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-5-methyl-, methyl ester (9CI) (CA INDEX NAME)



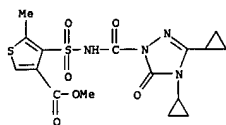
RN 317815-89-7 CAPLUS  
 CN 3-Thiophenecarboxylic acid, 4-[[[(4-cyclopropyl-4,5-dihydro-3-(1-methylethoxy)-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-5-methyl-, methyl ester (9CI) (CA INDEX NAME)



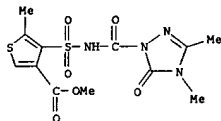
RN 317815-90-0 CAPLUS  
 CN 3-Thiophenecarboxylic acid, 4-[[[(3,4-dicyclopropyl-4,5-dihydro-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-5-methyl-, methyl ester (9CI) (CA INDEX NAME)

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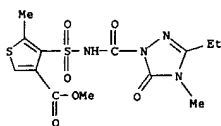
L4 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)



RN 317815-91-1 CAPLUS  
 CN 3-Thiophenecarboxylic acid, 4-[[[(4,5-dihydro-3,4-dimethyl-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-5-methyl-, methyl ester (9CI) (CA INDEX NAME)



RN 317815-92-2 CAPLUS  
 CN 3-Thiophenecarboxylic acid, 4-[[[(3-ethyl-4,5-dihydro-4-methyl-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-5-methyl-, methyl ester (9CI) (CA INDEX NAME)



RN 317815-93-3 CAPLUS  
 CN 3-Thiophenecarboxylic acid, 4-[[[(4,5-dihydro-4-methyl-3-(methylthio)-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-5-methyl-, methyl ester (9CI) (CA INDEX NAME)

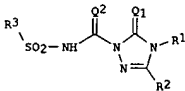
L4 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2000:35296 CAPLUS  
 DOCUMENT NUMBER: 132:64260  
 TITLE: Preparation of sulfonylamino(thio)carbonyl-1,2,4-triazol-5-ones as herbicides  
 INVENTOR(S): Muller, K-helmut; Kluth, J.; Gesing, E. R. F.  
 PATENT ASSIGNEE(S): Bayer A.-G., Germany  
 SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 69 pp.  
 CODEN: CWXKEV  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Chinese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1169723	A	19980107	CN 1996-191629	19960115
CN 1088063	B	20020724		

OTHER SOURCE(S): MARPAT 132:64260

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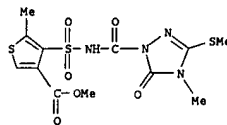


AB Title compds. I (Q1, Q2 = O, S; R1 = alkyl, cycloalkyl, alkoxy, amino, alkenyl, etc.; R2 = alkyl, alkoxy, alkylthio, halo, etc.; R1R2 = alkylene; R3 = Ph, substituted Ph, aralkyl, heteroaryl), useful as herbicides, are prepd. Thus, reaction of 4-methyl-5-methylthio-2,4-dihydro-3H-1,2,4-triazol-3-one with 3-chlorophenylsulfonyl isocyanate in MeCN in the presence of Et3N gave 2-(3-chlorophenylsulfonylthiocarbonyl)-4-methyl-5-methylthio-2,4-dihydro-3H-1,2,4-triazol-3-one. 2-(2-Trifluoromethoxyphenylsulfonylthiocarbonyl)-4-methyl-5-methylthio-2,4-dihydro-3H-1,2,4-triazol-3-one showed herbicidal activity at 60 g/ha.

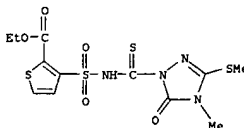
180480-12-0P  
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of sulfonylamino(thio)carbonyl-1,2,4-triazol-5-ones as herbicides)

RN 180480-12-0 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(4,5-dihydro-4-methyl-3-(methylthio)-5-oxo-1H-1,2,4-triazol-1-yl)thioxomethyl]amino]sulfonyl]-, ethyl ester (9CI) (CA INDEX NAME)

L4 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)



L4 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)

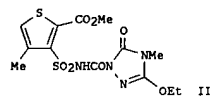
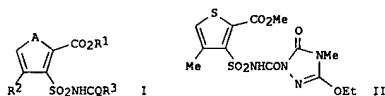


10/030,928

L4 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2002 ACS  
 ACCESSION NUMBER: 1997:394187 CAPLUS  
 DOCUMENT NUMBER: 127:5094  
 TITLE: N-Heterocyclylcarbonylbenzene- and -thiophenesulfonamides as herbicides  
 INVENTOR(S): Mueller, Klaus-Helmut; Drees, Mark Wilhelm; Findeisen, Kurt; Gering, Ernst R. F.; Jansen, Johannes R.; Kirsten, Rolf; Kluth, Joachim; Philipp, Ulrich; Riebel, Hans-Jochem; Dollinger, Markus; Santel, Hans-Joachim  
 PATENT ASSIGNEE(S): Bayer A.-G., Germany  
 SOURCE: Ger. Offen., 51 pp.  
 CODEN: GWXXBX  
 Patent  
 DOCUMENT TYPE: German  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

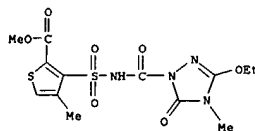
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19540737	A1	19970507	DE 1995-19540737	19951102
WO 9716449	A1	19970509	WO 1996-EP4559	19961021
W:	AU, BB, BG, BR, BY, CA, CN, PL, RO, RU, SK, TR, UA, US		CZ, HU, JP, KR, KZ, LK, MX, NO, NZ, SE, EF, BJ, CF, CG, CI, CH, GA, GN, ML, MR, NE, SN, TD, TG	
AU 9674909	A1	19970522	AU 1996-74909	19961021
EP 859774	A1	19980826	EP 1996-937202	19961021
EP 859774	B1	20020403		
R:	DE, FR, GB, IT			
BR 9611129	A	19990330	BR 1996-11129	19961021
JP 11515018	T2	19991221	JP 1996-517028	19961021
US 6180567	B1	20010130	US 1998-66385	19980807
US 6441195	B1	20020827	US 2000-710079	20001109
PRIORITY APPLN. INFO.:			DE 1995-19540737 A	19951102
			WO 1996-EP4559	W 19961021
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OTHER SOURCE(S): MARPAT 127:5094  
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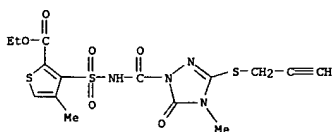
AB Title compds. I [A = O, S, (un)substituted NH, CH:N, N:CH, CH:CH; Q = O, S; R<sub>1</sub> = alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkylalkyl, aryl, acalkyl, heterocyclyl, heterocyclylalkyl; R<sub>2</sub> = CN, NO<sub>2</sub>, halogen, (un)substituted alkyl, alkoxy, alkoxyalkyl, alkylthio, alkylsulfanyl,

L4 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)  
 alkylsulfonyl, alkenyl, alkynyl, alkenyloxy, alkynyloxy; R<sub>3</sub> = (un)substituted 5-membered heterocycle] and their salts were prepd. Thus, the triazole deriv. II was obtained from the thiophenesulfonamide and the triazolecarboxylate. II has herbicidal activity while being well tolerated by maize and soybeans.  
 IT 190372-87-3P  
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (prepn. of N-heterocyclylcarbonylbenzene- and -thiophenesulfonamides as herbicides)  
 RN 190372-87-3 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[3-ethoxy-4,5-dihydro-4-methyl-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-4-methyl-, methyl ester (9CI) (CA INDEX NAME)

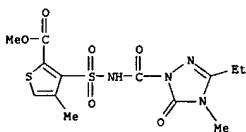


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 190373-18-3P 190373-19-4P 190373-20-7P  
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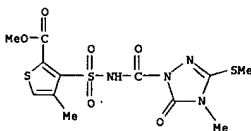
L4 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)  
 190374-13-1P 190379-04-5P  
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (prepn. of N-heterocyclylcarbonylbenzene- and -thiophenesulfonamides as herbicides)  
 RN 190372-88-4 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[4,5-dihydro-4-methyl-5-oxo-3-(2-propynylthio)-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-4-methyl-, ethyl ester (9CI) (CA INDEX NAME)



RN 190372-91-9 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[3-ethyl-4,5-dihydro-4-methyl-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-4-methyl-, methyl ester (9CI) (CA INDEX NAME)

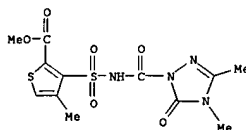


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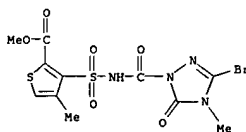


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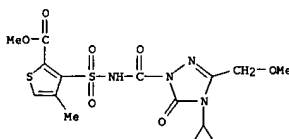
L4 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)  
 INDEX NAME



RN 190373-13-8 CAPLUS  
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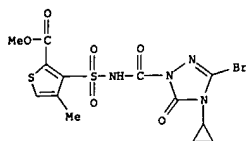


RN 190373-14-9 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[4-cyclopropyl-4,5-dihydro-3-(methoxymethyl)-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-4-methyl-, methyl ester (9CI) (CA INDEX NAME)

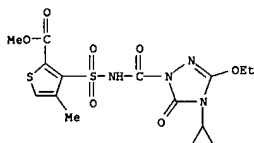


RN 190373-15-0 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[3-bromo-4-cyclopropyl-4,5-dihydro-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-4-methyl-, methyl ester (9CI) (CA INDEX NAME)

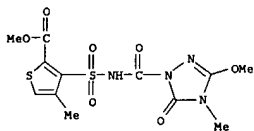
L4 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)



RN 190373-16-1 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(4-cyclopropyl-3-ethoxy-4,5-dihydro-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, methyl ester (9CI) (CA INDEX NAME)

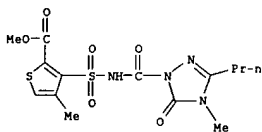


RN 190373-17-2 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(4,5-dihydro-3-methoxy-4-methyl-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, methyl ester (9CI) (CA INDEX NAME)

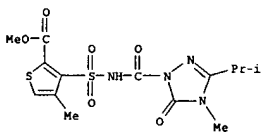


RN 190373-18-3 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(4,5-dihydro-3-(methoxymethyl)-4-methyl-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, methyl ester (9CI) (CA INDEX NAME)

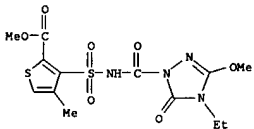
L4 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)



RN 190373-22-9 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(4,5-dihydro-4-methyl-3-(1-methylethyl)-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, methyl ester (9CI) (CA INDEX NAME)

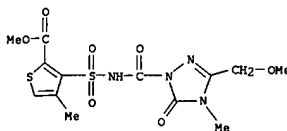


RN 190373-23-0 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(4-ethyl-4,5-dihydro-3-methoxy-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, methyl ester (9CI) (CA INDEX NAME)

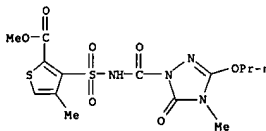


RN 190373-24-1 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(3-ethoxy-4-ethyl-4,5-dihydro-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, methyl ester (9CI) (CA INDEX NAME)

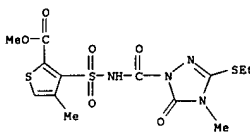
L4 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)



RN 190373-19-4 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(4,5-dihydro-4-methyl-5-oxo-3-propoxy-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, methyl ester (9CI) (CA INDEX NAME)

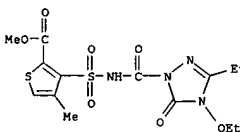


RN 190373-20-7 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(3-(ethylthio)-4,5-dihydro-4-methyl-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, methyl ester (9CI) (CA INDEX NAME)

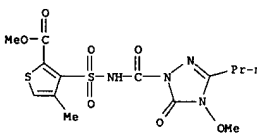


RN 190373-21-8 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(4,5-dihydro-4-methyl-5-oxo-3-propyl-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, methyl ester (9CI) (CA INDEX NAME)

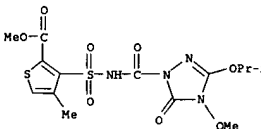
L4 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)



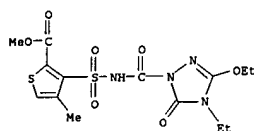
RN 190373-25-2 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(4,5-dihydro-4-methoxy-5-oxo-3-propyl-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, methyl ester (9CI) (CA INDEX NAME)



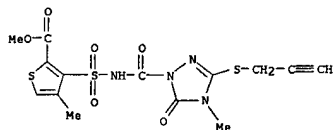
RN 190373-26-3 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(4,5-dihydro-4-methoxy-3-(1-methylethoxy)-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, methyl ester (9CI) (CA INDEX NAME)



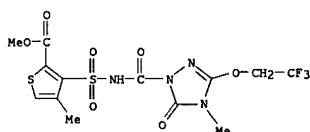
RN 190373-27-4 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(3-ethoxy-4-ethyl-4,5-dihydro-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, methyl ester (9CI) (CA INDEX NAME)



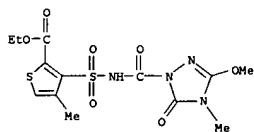
RN 190373-37-6 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[4,5-dihydro-4-methyl-5-oxo-3-(2-propynylthio)-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-4-methyl-, methyl ester (9CI) (CA INDEX NAME)



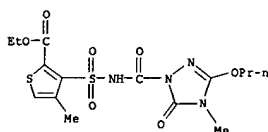
RN 190373-38-7 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[4,5-dihydro-4-methyl-5-oxo-3-(2,2,2-trifluoroethoxy)-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-4-methyl-, methyl ester (9CI) (CA INDEX NAME)



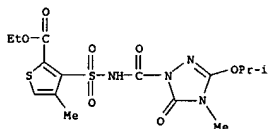
RN 190373-39-8 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[4-cyclopropyl-4,5-dihydro-3-(1-methylethoxy)-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-4-methyl-, methyl ester (9CI) (CA INDEX NAME)



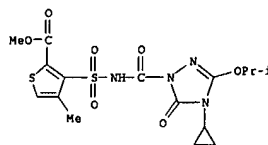
RN 190373-43-4 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[4,5-dihydro-4-methyl-5-oxo-3-propoxy-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-4-methyl-, ethyl ester (9CI) (CA INDEX NAME)



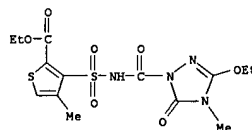
RN 190373-44-5 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[4,5-dihydro-4-methyl-3-(1-methylethoxy)-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-4-methyl-, ethyl ester (9CI) (CA INDEX NAME)



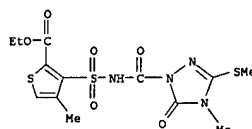
RN 190373-45-6 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[4-ethyl-4,5-dihydro-3-methoxy-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-4-methyl-, ethyl ester (9CI) (CA INDEX NAME)



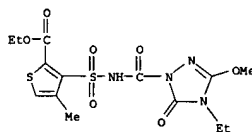
RN 190373-40-1 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[3-ethoxy-4,5-dihydro-4-methyl-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-4-methyl-, ethyl ester (9CI) (CA INDEX NAME)



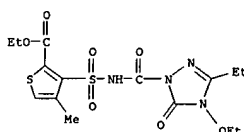
RN 190373-41-2 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[4,5-dihydro-4-methyl-3-(methylthio)-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-4-methyl-, ethyl ester (9CI) (CA INDEX NAME)



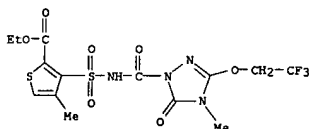
RN 190373-42-3 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[4,5-dihydro-3-methoxy-4-methyl-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-4-methyl-, ethyl ester (9CI) (CA INDEX NAME)



RN 190373-46-7 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[4-ethoxy-3-ethyl-4,5-dihydro-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-4-methyl-, ethyl ester (9CI) (CA INDEX NAME)

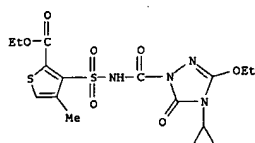


RN 190373-47-8 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[4,5-dihydro-4-methyl-5-oxo-3-(2,2,2-trifluoroethoxy)-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-4-methyl-, ethyl ester (9CI) (CA INDEX NAME)

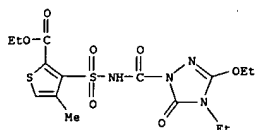


RN 190373-48-9 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[4-cyclopropyl-3-ethoxy-4,5-dihydro-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-4-methyl-, ethyl ester (9CI) (CA INDEX NAME)

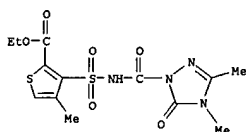
L4 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)



RN 190373-49-0 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(3-ethoxy-4-ethyl-4,5-dihydro-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, ethyl ester (9CI)  
 (CA INDEX NAME)

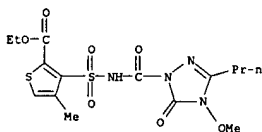


RN 190373-50-3 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(4,5-dihydro-3,4-dimethyl-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, ethyl ester (9CI)  
 (CA INDEX NAME)

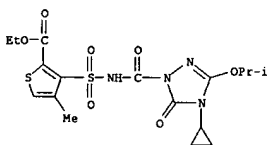


RN 190373-51-4 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(3-ethyl-4,5-dihydro-4-methyl-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, ethyl ester (9CI)  
 (CA INDEX NAME)

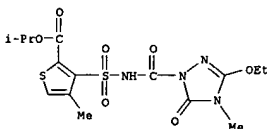
L4 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)



RN 190373-57-0 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(4-cyclopropyl-4,5-dihydro-3-(1-methylethoxy)-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, ethyl ester (9CI)  
 (CA INDEX NAME)

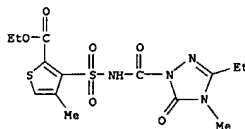


RN 190373-64-9 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(3-ethoxy-4,5-dihydro-4-methyl-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, 1-methylethyl ester (9CI)  
 (CA INDEX NAME)

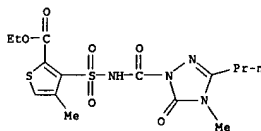


RN 190373-65-0 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(3-ethyl-4,5-dihydro-4-methyl-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, 1-methylethyl ester (9CI)  
 (CA INDEX NAME)

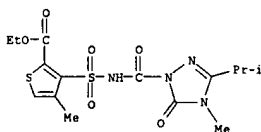
L4 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)



RN 190373-52-5 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(4,5-dihydro-4-methyl-5-oxo-3-propyl-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, ethyl ester (9CI)  
 (CA INDEX NAME)

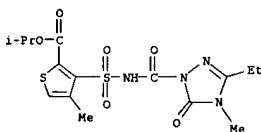


RN 190373-53-6 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(4,5-dihydro-4-methyl-3-(1-methylethyl)-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, ethyl ester (9CI)  
 (CA INDEX NAME)

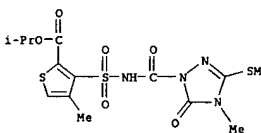


RN 190373-55-8 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(4,5-dihydro-4-methoxy-5-oxo-3-propyl-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, ethyl ester (9CI)  
 (CA INDEX NAME)

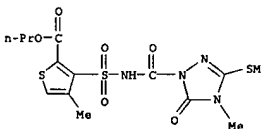
L4 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)



RN 190373-66-1 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(4,5-dihydro-4-methyl-3-(methylthio)-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, 1-methylethyl ester (9CI)  
 (CA INDEX NAME)



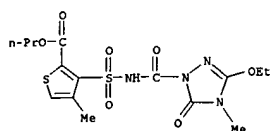
RN 190373-67-2 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(4,5-dihydro-4-methyl-3-(methylthio)-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, propyl ester (9CI)  
 (CA INDEX NAME)



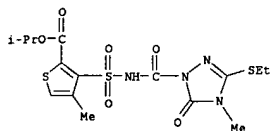
RN 190373-68-3 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(3-ethoxy-4,5-dihydro-4-methyl-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, propyl ester (9CI)  
 (CA INDEX NAME)

10/030,928

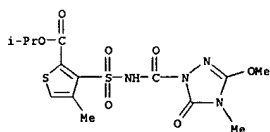
L4 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)



RN 190373-69-4 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[3-(ethylthio)-4,5-dihydro-4-methyl-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-4-methyl-, 1-methylethyl ester (9CI) (CA INDEX NAME)

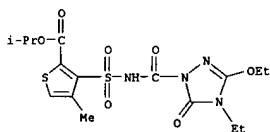


RN 190373-70-7 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[4,5-dihydro-3-methoxy-4-methyl-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-4-methyl-, 1-methylethyl ester (9CI) (CA INDEX NAME)

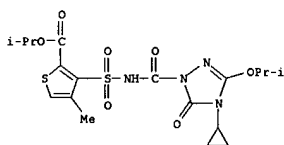


RN 190373-71-8 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[4,5-dihydro-4-methyl-5-oxo-3-propoxy-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-4-methyl-, 1-methylethyl ester (9CI) (CA INDEX NAME)

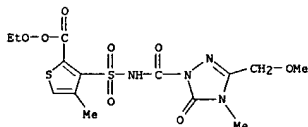
L4 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)



RN 190373-75-2 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[4-cyclopropyl-4,5-dihydro-3-(1-methylethoxy)-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-4-methyl-, 1-methylethyl ester (9CI) (CA INDEX NAME)

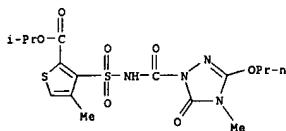


RN 190373-76-3 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[4,5-dihydro-3-(methoxymethyl)-4-methyl-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-4-methyl-, ethyl ester (9CI) (CA INDEX NAME)

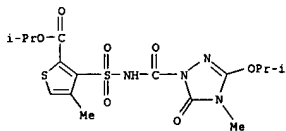


RN 190373-77-4 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[4,5-dihydro-3-methoxy-4-methyl-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-4-methyl-, propyl ester (9CI) (CA INDEX NAME)

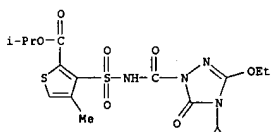
L4 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)



RN 190373-72-9 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[4,5-dihydro-4-methyl-3-(1-methylethoxy)-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-4-methyl-, 1-methylethyl ester (9CI) (CA INDEX NAME)

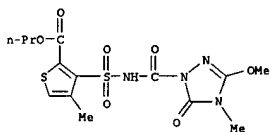


RN 190373-73-0 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[4-cyclopropyl-3-ethoxy-4,5-dihydro-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-4-methyl-, 1-methylethyl ester (9CI) (CA INDEX NAME)

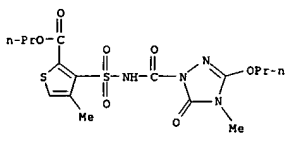


RN 190373-74-1 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[3-ethoxy-4-ethyl-4,5-dihydro-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-4-methyl-, 1-methylethyl ester (9CI) (CA INDEX NAME)

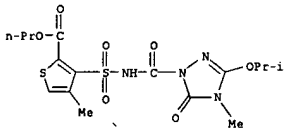
L4 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)



RN 190373-78-5 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[4,5-dihydro-4-methyl-5-oxo-3-propoxy-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-4-methyl-, propyl ester (9CI) (CA INDEX NAME)

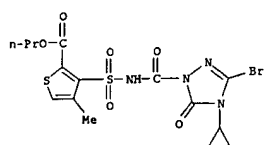


RN 190373-79-6 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[4,5-dihydro-4-methyl-3-(1-methylethoxy)-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-4-methyl-, propyl ester (9CI) (CA INDEX NAME)

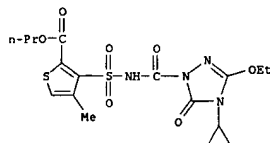


RN 190373-80-9 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[3-bromo-4-cyclopropyl-4,5-dihydro-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-4-methyl-, propyl ester (9CI) (CA INDEX NAME)

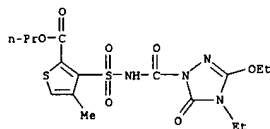




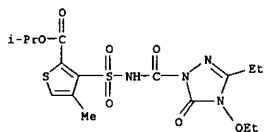
RN 190373-81-0 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[(4-cyclopropyl-3-ethoxy-4,5-dihydro-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, propyl ester (9CI) (CA INDEX NAME)



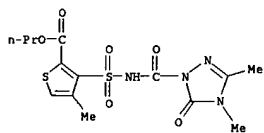
RN 190373-82-1 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[(3-ethoxy-4-ethyl-4,5-dihydro-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, propyl ester (9CI) (CA INDEX NAME)



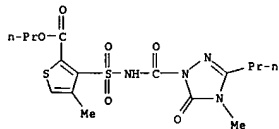
RN 190373-83-2 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[(3-(ethylthio)-4,5-dihydro-4-methyl-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, propyl ester (9CI) (CA INDEX NAME)



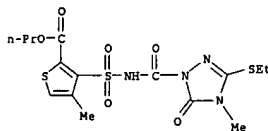
RN 190373-89-8 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[(4,5-dihydro-3,4-dimethyl-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, propyl ester (9CI) (CA INDEX NAME)



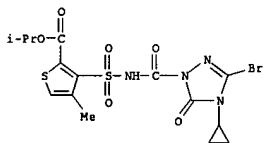
RN 190373-90-1 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[(4,5-dihydro-4-methyl-5-oxo-3-propyl-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, propyl ester (9CI) (CA INDEX NAME)



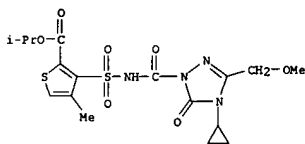
RN 190373-91-2 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[(4,5-dihydro-4-methyl-3-(1-methylethyl)-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, propyl ester (9CI) (CA INDEX NAME)



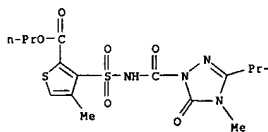
RN 190373-84-3 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[(3-bromo-4-cyclopropyl-4,5-dihydro-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, 1-methylethyl ester (9CI) (CA INDEX NAME)



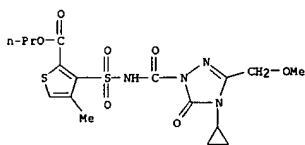
RN 190373-85-4 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[(4-ethoxy-3-ethyl-4,5-dihydro-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, 1-methylethyl ester (9CI) (CA INDEX NAME)



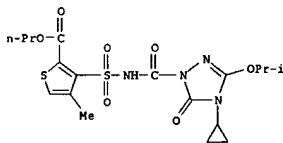
RN 190373-87-6 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[(4-ethoxy-3-ethyl-4,5-dihydro-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, 1-methylethyl ester (9CI) (CA INDEX NAME)



RN 190373-92-3 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[(4-cyclopropyl-4,5-dihydro-3-(methoxymethyl)-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, propyl ester (9CI) (CA INDEX NAME)

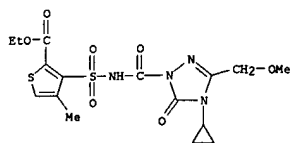


RN 190373-93-4 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[(4-cyclopropyl-4,5-dihydro-3-(1-methylethoxy)-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, propyl ester (9CI) (CA INDEX NAME)

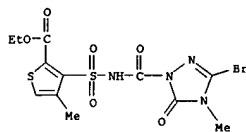


RN 190373-94-5 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[(4-cyclopropyl-4,5-dihydro-3-(methoxymethyl)-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, ethyl ester (9CI) (CA INDEX NAME)

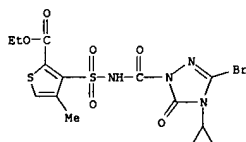
L4 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)



RN 190373-95-6 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(3-bromo-4,5-dihydro-4-methyl-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, ethyl ester (9CI)  
 (CA INDEX NAME)

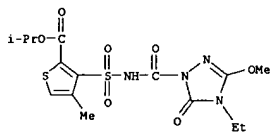


RN 190373-96-7 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(3-bromo-4-cyclopropyl-4,5-dihydro-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, ethyl ester (9CI)  
 (CA INDEX NAME)

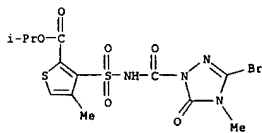


RN 190373-97-8 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(4,5-dihydro-3,4-dimethyl-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, 1-methylethyl ester (9CI)  
 (CA INDEX NAME)

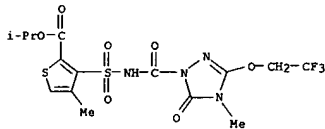
L4 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)



RN 190374-02-8 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(3-bromo-4,5-dihydro-4-methyl-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, 1-methylethyl ester (9CI)  
 (CA INDEX NAME)

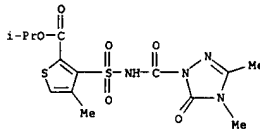


RN 190374-03-9 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(4,5-dihydro-4-methyl-5-oxo-3-(2,2,2-trifluoroethoxy)-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, 1-methylethyl ester (9CI)  
 (CA INDEX NAME)

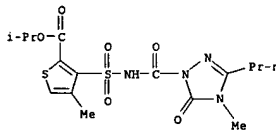


RN 190374-04-0 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(4,5-dihydro-4-methoxy-5-oxo-3-propyl-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, 1-methylethyl ester (9CI)  
 (CA INDEX NAME)

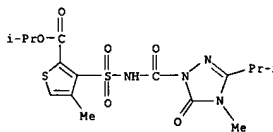
L4 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)



RN 190373-98-9 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(4,5-dihydro-4-methyl-5-oxo-3-propyl-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, 1-methylethyl ester (9CI)  
 (CA INDEX NAME)

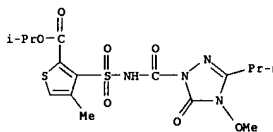


RN 190373-99-0 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(4,5-dihydro-4-methyl-3-(1-methylethyl)-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, 1-methylethyl ester (9CI)  
 (CA INDEX NAME)

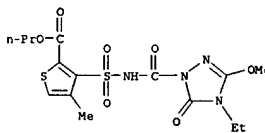


RN 190374-01-7 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(4-ethyl-4,5-dihydro-3-methoxy-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, 1-methylethyl ester (9CI)  
 (CA INDEX NAME)

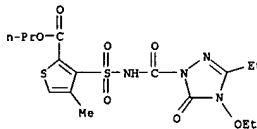
L4 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)



RN 190374-05-1 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(4-ethyl-4,5-dihydro-3-methoxy-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, propyl ester (9CI)  
 (CA INDEX NAME)



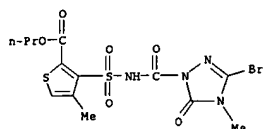
RN 190374-06-2 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(4-ethoxy-3-ethyl-4,5-dihydro-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, propyl ester (9CI)  
 (CA INDEX NAME)



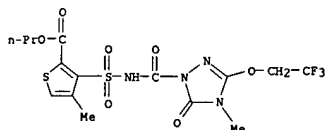
RN 190374-08-4 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(3-bromo-4,5-dihydro-4-methyl-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-4-methyl-, propyl ester (9CI)  
 (CA INDEX NAME)

10/030,928

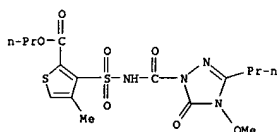
L4 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)



RN 190374-09-5 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[4,5-dihydro-4-methyl-5-oxo-3-(2,2,2-trifluoroethoxy)-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-4-methyl-, propyl ester (9CI) (CA INDEX NAME)



RN 190374-11-9 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[4,5-dihydro-4-methoxy-5-oxo-3-propyl-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-4-methyl-, propyl ester (9CI) (CA INDEX NAME)



RN 190374-13-1 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[3-ethoxy-4,5-dihydro-4-methyl-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-4-methyl-, methyl ester, sodium salt (9CI) (CA INDEX NAME)

L4 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2002 ACS

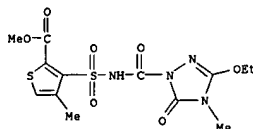
ACCESSION NUMBER: 1997:124917 CAPLUS  
 DOCUMENT NUMBER: 126:212152  
 TITLE: Preparation of 1-acyl-1,2,4-triazolin-5-ones as herbicides  
 INVENTOR(S): Muller, Klaus-helmut; Babczinski, Peter; Santel, Hans-joachim; Schmidt, Robert R.; Findeisen, Kurt; Lindig, Markus; Lursen, Klaus; Strang, Harry  
 PATENT ASSIGNEE(S): Bayer A.-G., Germany  
 SOURCE: U.S., 60 pp., Cont.-in-part of U.S. 5,523,409.  
 CODEN: USIXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 12  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5599944	A	19970204	US 1994-295446	19940824
DE 3709574	A1	19881006	DE 1987-3709574	19870324
US 5061311	A	19911029	US 1988-168823	19880316
DE 3934081	A1	19910418	DE 1989-3934081	19891012
DE 3936622	A1	19910508	DE 1989-3936622	19891103
DE 3936623	A1	19910508	DE 1989-3936623	19891103
US 5085684	A	19920204	US 1990-596845	19901012
US 5166356	A	19921124	US 1991-741702	19910806
US 5149356	A	19920922	US 1991-777824	19911015
US 5238910	A	19930824	US 1992-859216	19920327
US 5262389	A	19931116	US 1992-868065	19920413
US 5276162	A	19940104	US 1992-870867	19920420
US 5380864	A	19950110	US 1993-60075	19930510
US 5523409	A	19960604	US 1993-125975	19930923
US 5380863	A	19950110	US 1993-136429	19931013
US 5532378	A	19960702	US 1994-356933	19941215
US 5625074	A	19970429	US 1996-632984	19960416
US 5750718	A	19980512	US 1996-729126	19961011

PRIORITY APPLN. INFO.:  
 DE 1987-3709574 A 19870324  
 US 1988-168823 A3 19880316  
 DE 1989-3934081 A 19891012  
 DE 1989-3936622 A 19891103  
 DE 1989-3936623 A 19891103  
 US 1990-596845 A3 19901012  
 US 1991-741702 A3 19910806  
 US 1991-777824 A3 19911015  
 US 1992-868065 A3 19920413  
 US 1992-870867 A3 19920420  
 US 1993-125975 A2 19930923  
 US 1993-136429 A2 19931013  
 DE 1988-3815765 A 19880509  
 US 1989-337775 B2 19890413  
 US 1990-556052 A2 19900720  
 US 1990-580900 A2 19900911  
 US 1991-692439 A3 19910429  
 US 1991-816365 A3 19911230  
 US 1992-859216 A3 19920327  
 US 1993-31426 A3 19930315  
 US 1994-295446 A3 19940824  
 US 1994-356933 A3 19941215

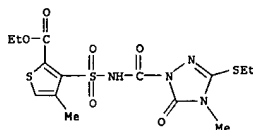
OTHER SOURCE(S): CASREACT 126:212152; MARPAT 126:212152  
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L4 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)

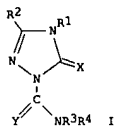


● Na

RN 190379-04-5 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[3-(ethylthio)-4,5-dihydro-4-methyl-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-4-methyl-, ethyl ester (9CI) (CA INDEX NAME)



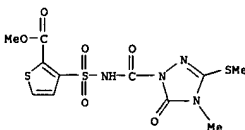
L4 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)



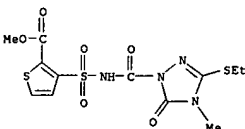
AB Title compds. [e.g., I; R1 = H, (halo)alk(en)yl, alkoxy, etc.; R2 = NR5R6 or SO2NR7; R3,R4 = H, (halo)alk(en)yl, alkoxy, aryl, etc.; R5,R6 = (halo)alk(en)yl, alkoxy, aryl, etc.; R7 = (cyclo)alkyl, aryl(alkyl), etc.; X, Y = O or S; n = 0-2] were prepd. as herbicides (no data). Thus, MeHCOHMe2 was treated with COCl2 and the product condensed with H2NNH2 to give MeN:C(NMe2)NHNH2 which was cyclocondensed with COCl2 to give, in 2 addnl. steps, I (R1 = Me, R2 = NMe2, R3 = H, R4 = allyl, X = Y = O).  
 IT 187934-62-9P 187934-63-OP 187934-64-1P 187934-65-2P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) [prepn. of 1-acyl-1,2,4-triazolin-5-ones as herbicides]

RN 187934-62-9 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[4,5-dihydro-4-methyl-3-(methylthio)-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)



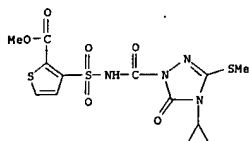
RN 187934-63-0 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[3-(ethylthio)-4,5-dihydro-4-methyl-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)



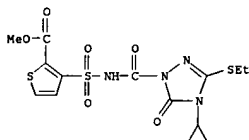
10/030,928

L4 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)

RN 187934-64-1 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[4-cyclopropyl-3-(ethylthio)-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl-, methyl ester (9CI)  
 (CA INDEX NAME)



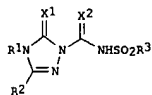
RN 187934-65-2 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[4-cyclopropyl-3-(ethylthio)-4,5-dihydro-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl-, methyl ester (9CI)  
 (CA INDEX NAME)



L4 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1996:529714 CAPLUS  
 DOCUMENT NUMBER: 125:167992  
 TITLE: Preparation of N-arylsulfonyl-3-oxo-1,2,4-triazole-2-thiocarboxamides as herbicides  
 INVENTOR(S): Mueller, Klaus-Helmut; Kluth, Joachim; Gensing, Ernst R. F.; Koenig, Klaus; Dollinger, Markus; Santel, Hans-Joachim  
 PATENT ASSIGNEE(S): Bayer A.-G., Germany  
 SOURCE: Ger. Offen., 44 pp.  
 CODEN: GWXKX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19502579	A1	19960801	DE 1995-19502579	19950127
WO 9622982	A1	19960801	WO 1996-EP141	19960115
W: AU, BB, BG, BR, BY, CA, CN, CZ, FI, HU, JP, KR, KZ, LK, MX, NO, NZ, PL, RO, RU, SK, UA, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2211411	AA	19960801	CA 1996-2211411	19960115
AU 9644866	A1	19960814	AU 1996-44866	19960115
AU 702564	B2	19990225		
EP 805804	A1	19971112	EP 1996-900955	19960115
R: BE, CH, DE, ES, FR, GB, IT, LI, NL				
JP 10512577	T2	19981202	JP 1996-522585	19960115
US 5972844	A	19991026	US 1997-875221	19970718
PRIORITY APPLN. INFO.:			DE 1995-19502579	19950127
			WO 1996-EP141	19960115
OTHER SOURCE(S):			MARPAT 125:167992	
GI				

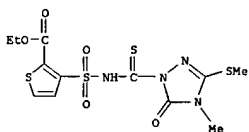


AB Title compds. [I: R1 = H, OH, NH2, alkyl, aryl, etc.; R2 = H, halo, OH, alkyl, alkoxy, etc.; R1R2 = alkylene; R3 = aryl(alkyl), heteroaryl; X1, X2 = O or S] were prepd. as herbicides (no data). Thus, 4-methyl-5-methylthio-2,4-dihydro-3H-1,2,4-triazole-3-one was N-acylated by 3-ClCGH4SO2NCS to give I (R1 = Me, R2 = SMe, R3 = 3-ClCGH4, X1 = O, X2 = S).

IT 180480-12-0P  
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

L4 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)  
 (prepn. of N-arylsulfonyl-3-oxo-1,2,4-triazole-2-thiocarboxamides as herbicides)

RN 180480-12-0 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[4,5-dihydro-4-methyl-3-(methylthio)-5-oxo-1H-1,2,4-triazol-1-yl]thioxomethyl]amino]sulfonyl-, ethyl ester (9CI)  
 (CA INDEX NAME)

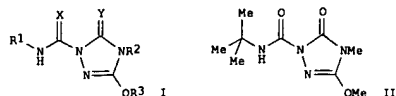


L4 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1996:524265 CAPLUS  
 DOCUMENT NUMBER: 125:221848  
 TITLE: Substituted 5-alkoxy-1,2,4-triazol-3-(thio)ones useful as herbicides.  
 INVENTOR(S): Mueller, Klaus Helmut; Koenig, Klaus; Kluth, Joachim; Luerssen, Klaus; Santel, Hans Joachim; Schmidt, Robert R.  
 PATENT ASSIGNEE(S): Bayer A.-G., Germany  
 SOURCE: U.S., 69 pp., Cont.-in-part of U.S. 5,356,865.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 12  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5541337	A	19960730	US 1994-269875	19940630
US 5057144	A	19911015	US 1990-556052	19900720
DE 4030063	A1	19920326	DE 1990-4030063	19900922
DE 4110795	A1	19921008	DE 1991-4110795	19910404
US 5094683	A	19920310	US 1991-692439	19910429
US 5241074	A	19930831	US 1991-816365	19911230
HU 219801	B	20010828	HU 1999-3283	19920402
US 5356865	A	19941018	US 1992-976185	19921106
US 5405970	A	19950411	US 1993-31426	19930315
US 5532378	A	19960702	US 1994-356933	19941215
US 5534486	A	19960709	US 1995-384196	19950206
US 5597939	A	19970128	US 1996-630569	19960410
US 5597939	B1	20000104		
US 5625074	A	19970429	US 1996-632984	19960416
US 5652372	A	19970729	US 1996-637995	19960425
US 5869681	A	19990209	US 1997-881269	19970624
PRIORITY APPLN. INFO.:			US 1989-337775	B2 19890413
			US 1990-556052	A3 19900720
			DE 1990-4030063	A 19900922
			DE 1991-4110795	A 19910404
			US 1991-692439	A3 19910429
			US 1991-757785	B2 19911111
			US 1991-816365	A3 19911230
			US 1992-857025	B2 19920324
			US 1992-976185	A2 19921106
			US 1993-31426	A2 19930315
			US 1993-48026	B2 19930415
			DE 1988-3815765	A 19880509
			DE 1989-3934081	A 19891012
			HU 1992-1114	A 19920402
			US 1994-269875	A3 19940630
			US 1994-356933	A3 19941215
			US 1995-384196	A3 19950206
			US 1996-630569	A3 19960410
			US 1996-716826	B3 19960912

OTHER SOURCE(S): MARPAT 125:221848  
 GI

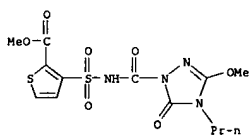


AB Herbicidal 5-alkoxy-1,2,4-triazol-3-(thio)ones I [R1 = (un)substituted alk(en/yn)yl, cycloalk(en)yl(alkyl), aryl, aryloxy, etc.; R2 = (halo)alk(en/yn)yl, alkoxyalkyl, cyanoalkyl, alkoxy, cycloalkyl(alkyl); R3 = (halo)alk(en/yn)yl, alkoxyalkyl, cyanoalkyl; X, Y = O, S] are disclosed, as well as related herbicidal compds. I [R1 = RaSO2; Ra = (un)substituted alkyl, aralkyl, (hetero)aryl; X = Y = O], processes for their prepn., their use as herbicides, and new intermediates. Over 500 invention compds. and approx. 35 intermediates are described. For example, cyclocondensation of Ph hydrazinofornate with tri-Me iminocarbonate in O-Cl2CH4 gave 16% of the intermediate 5-methoxy-4-methyl-2,4-dihydro-3H-1,2,4-triazol-3-one. This reacted with tert-Bu isocyanate in MeCN in the presence of DBU to give 61% title compd. II. In comparison to a known related herbicide from EP-A 341,489, II and several other invention compds. were considerably more active against weeds, with good crop plant compatibility in some cases (no data).

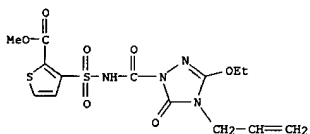
IT 145026-47-7P 145026-89-1P 145027-75-4P  
145027-76-5P 145027-77-6P 145027-78-7P  
145027-79-8P 145027-80-1P 145027-81-2P  
145027-82-3P 145027-95-7P 145027-11-OP  
145027-72-3P 145027-78-OP 145027-79-1P  
145027-87-1P 145027-88-OP 145027-89-3P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of substituted alkoxytriazolones and -thiones as herbicides)

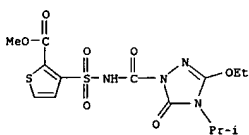
RN 145026-47-7 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[(4,5-dihydro-3-methoxy-5-oxo-4-propyl-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)



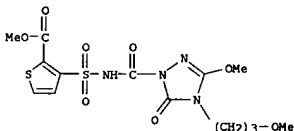
RN 145026-59-1 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[(3-butoxy-4,5-dihydro-4-methyl-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)



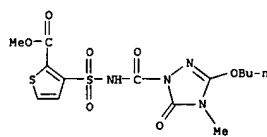
RN 145027-78-7 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[(3-ethoxy-4,5-dihydro-4-(1-methylethyl)-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)



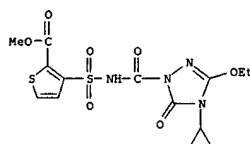
RN 145027-79-8 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[(4,5-dihydro-3-methoxy-4-(3-methoxypropyl)-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)



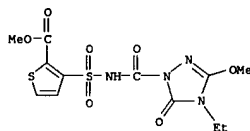
RN 145027-80-1 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[(3-ethoxy-4,5-dihydro-5-oxo-4-propyl-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)



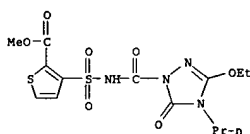
RN 145027-75-4 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[(4-cyclopropyl-3-ethoxy-4,5-dihydro-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)



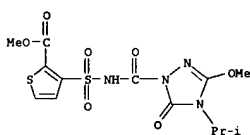
RN 145027-76-5 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[(4-ethyl-4,5-dihydro-3-methoxy-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)



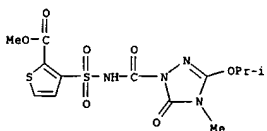
RN 145027-77-6 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[(3-ethoxy-4,5-dihydro-5-oxo-4-(2-propenyl)-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)



RN 145027-81-2 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[(4,5-dihydro-3-methoxy-4-(1-methylethyl)-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)



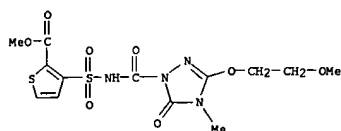
RN 145027-82-3 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[(4,5-dihydro-4-methyl-3-(1-methylethoxy)-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)



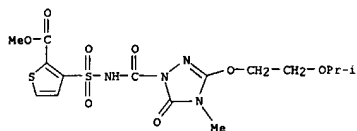
RN 181272-95-7 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[(4,5-dihydro-3-(2-methoxyethoxy)-4-methyl-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)

10/030,928

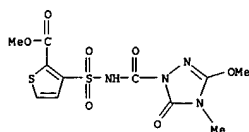
L4 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)



RN 181273-11-0 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[4,5-dihydro-4-methyl-3-[2-(1-methylethoxy)ethoxy]-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-, methyl ester (9Ci) (CA INDEX NAME)

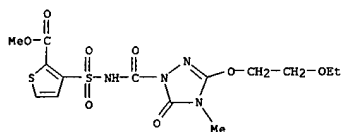


RN 181273-72-3 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[4,5-dihydro-3-methoxy-4-methyl-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-, methyl ester (9Ci) (CA INDEX NAME)

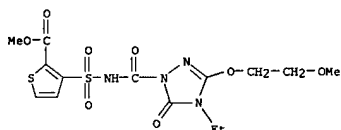


RN 181313-78-0 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[3-ethoxy-4,5-dihydro-4-(1-methylethyl)-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-, propyl ester (9Ci) (CA INDEX NAME)

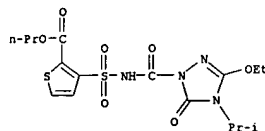
L4 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)



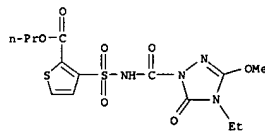
RN 181314-28-3 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[4-ethyl-4,5-dihydro-3-(2-methoxyethoxy)-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-, methyl ester (9Ci) (CA INDEX NAME)



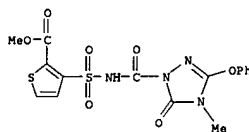
L4 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)



RN 181313-79-1 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[4-ethyl-4,5-dihydro-3-methoxy-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-, propyl ester (9Ci) (CA INDEX NAME)



RN 181313-87-1 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[4,5-dihydro-4-methyl-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-, methyl ester (9Ci) (CA INDEX NAME)

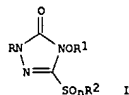


RN 181314-08-9 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[3-(2-ethoxyethoxy)-4,5-dihydro-4-methyl-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-, methyl ester (9Ci) (CA INDEX NAME)

L4 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1996:332399 CAPLUS  
 DOCUMENT NUMBER: 125:10830  
 TITLE: Preparation of N-(sulfonylcarbonyl)triazolinones as herbicides and agrochemical fungicides  
 INVENTOR(S): Mueller, Klaus-Helmut; Koenig, Klaus; Santel, Hans-Joachim; Dollinger, Markus; Stenzel, Klaus  
 PATENT ASSIGNEE(S): Bayer A.-G., Germany  
 SOURCE: Ger. Offen., 47 pp.  
 CODEN: GWQXEX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4435547	A1	19960411	DE 1994-4435547	19941005
WO 9611188	A1	19960418	WO 1995-EP3768	19950922
W:	AU, BB, BG, BR, BY, CA, CN, CZ, FI, HU, JP, KR, KZ, LK, MX, NO, NZ, PL, RO, RU, SK, UA, US			
RW:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
AU 9536526	A1	19960502	AU 1995-36526	19950922
EP 784616	A1	19970723	EP 1995-934107	19950922
R:	BE, CH, DE, ES, FR, GB, IT, LI, NL			
CN 1168668	A	19971224	CN 1995-196565	19950922
JP 10508298	T2	19980818	JP 1995-512286	19950922
PRIORITY APPLM. INFO.:			DE 1994-4435547	19941005
			WO 1995-EP3768	19950922
OTHER SOURCE(S):		MARPAT 125:10830		



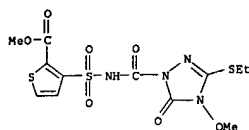
AB Title compds. (I: R = CONHSO2R3) (II: R1 = H, (cyclo)alk(en)yl, alkynyl, aryl(alkyl); R2 = (cyclo)alk(en)yl, alkynyl, aryl(alkyl), cycloalkylalkyl; R3 = (ar)alkyl, (hetero)aryl; n = 0-2) were prepd. as herbicides (no data) and agrochem. fungicides. Thus, H2NNHCONHOEt (prepn. given) was acylated with ClC(:S)OPh and the cyclized product S-methylated to give I (R = H, R1 = OEt, R2 = Me, n = 0). Similarly prepd. I (R1 = R2 = Et, n = 0) (II: R = H) was condensed with 2-(MeO2C)C6H4SO2NHCO to give II [R = 2-(MeO2C)C6H4SO2NHCO] which gave complete control of Venturia inaequalis on apple seedlings at 10ppm.

IT 177175-42-7  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (prepn. of N-(sulfonylcarbonyl)triazolinones as herbicides and agrochem. fungicides)

RN 177175-42-7 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[3-(ethylthio)-4,5-dihydro-4-methoxy-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-, methyl ester (9Ci) (CA INDEX NAME)

10/030,928

L4 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)

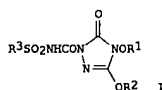


L4 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1994:403299 CAPLUS  
 DOCUMENT NUMBER: 121:3299  
 TITLE: Herbicidal sulfonylaminocarbonyltriazolinones having two substituents bonded via oxygen  
 INVENTOR(S): Haas, Wilhelm; Mueller, Klaus Helmut; Koenig, Klaus; Santel, Hans Joachim; Luerksen, Klaus; Schmidt, Robert R.  
 PATENT ASSIGNEE(S): Bayer A.-G., Germany  
 SOURCE: U.S., 24 pp. Cont.-in-part of U.S. Ser. No. 31,426.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 12  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5300480	A	19940405	US 1992-945194	19920915
US 5057144	A	19911015	US 1990-556052	19900720
US 5094683	A	19920310	US 1991-692439	19910429
US 5241074	A	19930831	US 1991-816365	19911230
US 5405970	A	19950411	US 1993-31426	19930315
US 5488028	A	19960130	US 1993-174495	19931228
US 5532378	A	19960702	US 1994-356933	19941215
US 5554761	A	19960910	US 1995-547698	19951019
US 5625074	A	19970429	US 1996-632984	19960416
US 5631380	A	19970520	US 1996-644999	19960514
PRIORITY APPLN. INFO.:				
			US 1989-337775	B2 19890413
			US 1990-556052	A3 19900720
			US 1991-692439	A3 19910429
			US 1991-816365	A2 19911230
			US 1993-31426	A2 19930315
			DE 1988-3815765	A 19880509
			DE 1988-3815769	A 19880509
			DE 1989-3934081	A 19891012
			DE 1991-4131842	A 19910925
			US 1992-945194	A3 19920915
			US 1993-174495	A3 19931228
			US 1994-356933	A3 19941215
			US 1995-547698	A3 19951019

OTHER SOURCE(S): MARPAT 121:3299  
GI



AB Sulfonylaminocarbonyltriazolinones (I; R1 = H or an optionally substituted

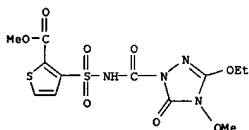
L4 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)

alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl or aralkyl; R2 = optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl or aralkyl; R3 = optionally substituted alkyl, aralkyl, aryl and heteroaryl) having 2 substituents bonded via oxygen, and their salts, are herbicides. Pre- and post-emergence herbicidal activity was demonstrated.  
 IT 148703-89-3 148704-01-2 148704-24-9

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)

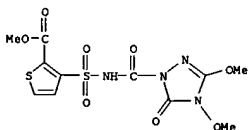
RN 148703-89-3 CAPLUS

CN 2-Thiophenecarboxylic acid, 3-[[[(3-ethoxy-4,5-dihydro-4-methoxy-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)



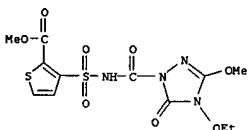
RN 148704-01-2 CAPLUS

CN 2-Thiophenecarboxylic acid, 3-[[[(4,5-dihydro-3,4-dimethoxy-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)



RN 148704-24-9 CAPLUS

CN 2-Thiophenecarboxylic acid, 3-[[[(4-ethoxy-4,5-dihydro-3-methoxy-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)

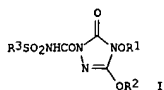


10/030,928

L4 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2002 ACS  
 ACCESSION NUMBER: 1993:517257 CAPLUS  
 DOCUMENT NUMBER: 119:117257  
 TITLE: Preparation and herbicidal activity of sulfonylaminocarbonyltriazolones  
 INVENTOR(S): Haas, Wilhelm; Mueller, Klaus Helmut; Koenig, Klaus; Santel, Hans Joachim; Luerssen, Klaus; Schmidt, Robert R. Dr  
 PATENT ASSIGNEE(S): Bayer A.-G., Germany  
 SOURCE: Eur. Pat. Appl., 50 pp.  
 CODEN: EPKXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 12  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 534266	A1	19930331	EP 1992-115698	19920914
EP 534266	B1	19970528		
R: BE, CH, DE, ES, FR, GB, IT, LI, NL				
DE 4131842	A1	19930401	DE 1991-4131842	19910925
ES 2102433	T3	19970801	ES 1992-115698	19920914
JP 05213907	A2	19930824	JP 1992-273803	19920917
JP 3164913	B2	20010514		
CA 2078811	AA	19930326	CA 1992-2078811	19920922
BR 9203729	A	19930420	BR 1992-3729	19920924
PRIORITY APPLN. INFO.:		DE 1991-4131842	A	19910925

OTHER SOURCE(S): MARPAT 119:117257  
 GI

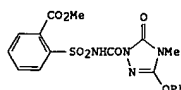
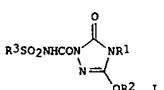


AB The prepn. of title compds. I (R1 = H, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aralkyl; R2 = alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aralkyl; R3 = alkyl, aralkyl, aryl, heteroalkyl) as herbicides is claimed.  
 IT 148703-89-3P 148704-01-2P 148704-24-9P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (prepn. and herbicidal activity of)  
 RN 148703-89-3 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(3-ethoxy-4,5-dihydro-4-methoxy-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)

L4 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2002 ACS  
 ACCESSION NUMBER: 1993:38929 CAPLUS  
 DOCUMENT NUMBER: 118:38929  
 TITLE: Preparation of .alpha.-sulfonylaminocarbonyl-1,2,4-triazol-3-ones as herbicides  
 INVENTOR(S): Mueller, Klaus Helmut; Koenig, Klaus; Kluth, Joachim; Luerssen, Klaus; Santel, Hans Joachim; Schmidt, Robert R.  
 PATENT ASSIGNEE(S): Bayer A.-G., Germany  
 SOURCE: Eur. Pat. Appl., 62 pp.  
 CODEN: EPKXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 12  
 PATENT INFORMATION:

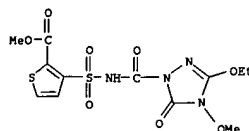
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 507171	A1	19921007	EP 1992-104971	19920323
EP 507171	B1	19971001		
R: BE, CH, DE, DK, ES, FR, GB, IT, LI, NL				
DE 4110795	A1	19921008	DE 1991-4110795	19910404
AU 9212189	A1	19921008	AU 1992-12189	19920310
AU 658862	B2	19950504		
ES 2108056	T3	19971216	ES 1992-104971	19920323
JP 05194433	A2	19930803	JP 1992-102509	19920330
JP 3262368	B2	20020304		
CA 2064636	AA	19921005	CA 1992-2064636	19920401
CA 2064636	C	19971223		
HU 61532	A2	19930128	HU 1992-1114	19920402
HU 217350	B	20000128		
HU 219801	B	20010828	HU 1999-3283	19920402
BR 9201207	A	19921201	BR 1992-1207	19920403
US 5597939	A	19970128	US 1996-630569	19960410
US 5597939	B1	20000104		
US 5869681	A	19990209	US 1997-881269	19970624
PRIORITY APPLN. INFO.:		DE 1991-4110795	A	19910404
		US 1992-857025	B1	19920324
		HU 1992-1114	A	19920402
		US 1993-48026	B1	19930415
		US 1995-384196	A3	19950206
		US 1996-630569	A3	19960410
		US 1996-716826	B3	19960912

OTHER SOURCE(S): MARPAT 118:38929  
 GI

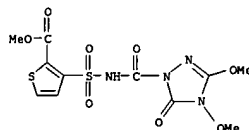


AB Title compds. [I; R1 = H, amino, (substituted) alkyl, alkenyl, alkynyl, cycloalkyl, aralkyl, aryl; R2 = alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aralkyl, aryl; R3 = (substituted) alkyl, aralkyl, aryl, heteroaryl], were prepd. as herbicides (no data). Thus, 4-methyl-5-phenoxy-2,4-dihydro-3H-1,2,4-triazol-3-one and

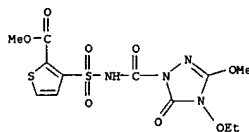
L4 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)



RN 148704-01-2 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(4,5-dihydro-3,4-dimethoxy-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)

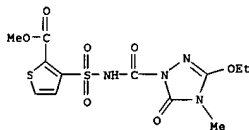


RN 148704-24-9 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(4-ethoxy-4,5-dihydro-3-methoxy-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)

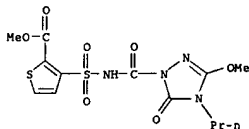


L4 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)  
 2-MeC2CCGH4SO2NCO were stirred 6 h in MeCN to give 90% title compd. II. Several I were said to show superior pre- and postemergence herbicidal activity and to be well-tolerated by crop plants.

IT 145026-31-9P 145026-47-7P 145026-59-1P  
 145027-75-4P 145027-76-5P 145027-77-6P  
 145027-78-7P 145027-79-8P 145027-80-1P  
 145027-81-2P 145027-82-3P  
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (prepn. of, as herbicide)  
 RN 145026-31-9 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(3-ethoxy-4,5-dihydro-4-methyl-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)



RN 145026-47-7 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(4,5-dihydro-3-methoxy-5-oxo-4-propyl-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)

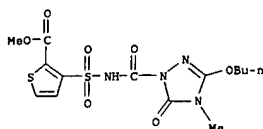


RN 145026-59-1 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(3-butoxy-4,5-dihydro-4-methyl-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)

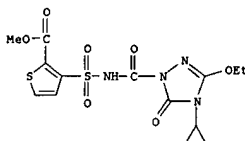


10/030,928

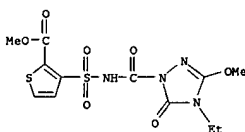
L4 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)



RN 145027-75-4 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[4-cyclopropyl-3-ethoxy-4,5-dihydro-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)

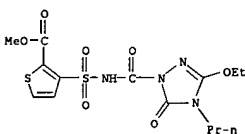


RN 145027-76-5 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[4-ethyl-4,5-dihydro-3-methoxy-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)

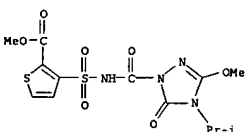


RN 145027-77-6 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[4,5-dihydro-3-methoxy-4-(2-propenyl)-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)

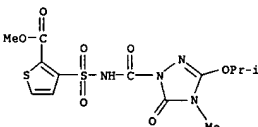
L4 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)



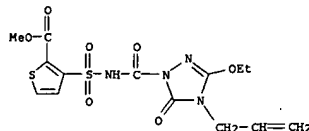
RN 145027-81-2 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[4,5-dihydro-3-methoxy-4-(1-methylethyl)-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)



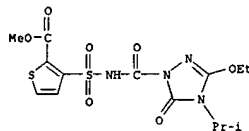
RN 145027-82-3 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[4,5-dihydro-4-methyl-3-(1-methylethoxy)-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)



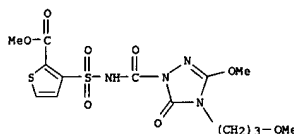
L4 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)



RN 145027-78-7 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[3-ethoxy-4,5-dihydro-4-(1-methylethyl)-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)



RN 145027-79-8 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[4,5-dihydro-3-methoxy-4-(3-methoxypropyl)-5-oxo-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)



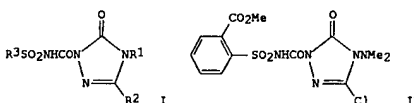
RN 145027-80-1 CAPLUS  
CN 2-Thiophenecarboxylic acid, 3-[[[3-ethoxy-4,5-dihydro-5-oxo-4-propyl-1H-1,2,4-triazol-1-yl]carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)

L4 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1991:514509 CAPLUS  
DOCUMENT NUMBER: 115:114509  
TITLE: Preparation of 2-(sulfonylaminocarbonyl)-2,4-dihydro-3H-1,2,4-triazol-3-ones as herbicides  
INVENTOR(S): Mueller, Klaus Helmut; Babczinski, Peter; Santel, Hans Joachim; Schmidt, Robert R.  
PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.  
SOURCE: Eur. Pat. Appl., 37 pp.  
CODEN: EPXXGW  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 12  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 425948	A2	19910508	EP 1990-120152	19901020
EP 425948	A3	19911009		
EP 425948	B1	19951213		
R: BE, CH, DE, DK, ES, FR, GB, IT, LI, NL				
DE 3936622	A1	19910508	DE 1989-3936622	19891103
AU 9063602	A1	19910509	AU 1990-63602	19900927
AU 623284	B2	19920507		
EP 661262	A1	19950705	EP 1995-101833	19901020
EP 661262	B1	19980923		
R: BE, CH, DE, DK, ES, FR, GB, IT, LI, NL				
ES 2081334	T3	19960301	ES 1990-120152	19901020
ES 2121240	T3	19981116	ES 1995-101833	19901020
JP 03153674	A2	19910701	JP 1990-288604	19901029
JP 2965661	B2	19991018		
CA 2029105	AA	19910504	CA 1990-2029105	19901101
BR 9005570	A	19910917	BR 1990-5570	19901101
ZA 9008799	A	19910828	ZA 1990-8799	19901102
US 5238910	A	19930824	US 1992-859216	19920327
US 5380864	A	19950110	US 1993-60075	19930510
PRIORITY APPLN. INFO.:				
			DE 1989-3936622	A 19891103
			US 1990-580900	B2 19900911
			EP 1990-120152	A3 19901020
			US 1992-859216	A3 19920327

OTHER SOURCE(S): MARPAT 115:114509  
GI



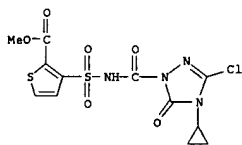
AB Title compds. [I: R1 = H, OH, amino, (substituted) alkyl, alkenyl, alkynyl, cycloalkyl, aralkyl, aryl, alkoxy, alkenyloxy, alkylamino, cycloalkylamino, dialkylamino; R2 = halo; R3 = alkyl, aralkyl, aryl, heteroaryl], were prepd. as herbicides (no data). Thus, 5-chloro-4-dimethylamino-2,4-dihydro-3H-1,2,4-triazol-3-one (prepn.

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L4 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)  
 starting from di-Ph carbonate and Me<sub>2</sub>NNH<sub>2</sub> given) and 2-methoxycarbonyl  
 phenylsulfonyl isocyanate were stirred 6 h at 20.degree. in MeCN to give  
 title compd. II. Several I were said to be superior pre- and postemergent  
 herbicides.

IT 135692-71-6P  
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except  
 adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP  
 (Preparation); USES (Uses)  
 (prepn. of, as herbicide)

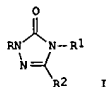
RN 135692-71-6 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(3-chloro-4-cyclopropyl-4,5-dihydro-5-oxo-  
 1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA  
 INDEX NAME)



L4 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2002 ACS  
 ACCESSION NUMBER: 1991:471618 CAPLUS  
 DOCUMENT NUMBER: 115:71618  
 TITLE: Preparation of sulfonylaminocarbonyltriazolinones as  
 herbicides  
 INVENTOR(S): Mueller, Klaus Helmut; Babczinski, Peter; Santel, Hans  
 Joachim; Schmidt, Robert R.  
 PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.  
 SOURCE: Eur. Pat. Appl., 70 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 12  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 422469	A2	19910417	EP 1990-118750	19900929
EP 422469	A3	19920108		
EP 422469	B1	19960508		
R: BE, CH, DE, UK, ES, FR, GB, IT, LI, NL				
DE 3934081	A1	19910418	DE 1989-3934081	19891012
EP 683157	A1	19951122	EP 1995-111736	19900929
R: BE, CH, DE, DK, ES, FR, GB, IT, LI, NL				
ES 2087107	T3	19960716	ES 1990-118750	19900929
JP 03133966	A2	19910607	JP 1990-269742	19901009
CA 2027206	AA	19910413	CA 1990-2027206	19901010
CA 2027206	C	19971223		
PL 165494	B1	19941230	PL 1990-287259	19901010
AU 9064591	A1	19910418	AU 1990-64591	19901011
AU 627080	B2	19920813		
HU 55369	A2	19910528	HU 1990-6419	19901011
HU 218976	B	20010129		
BR 9005095	A	19910917	BR 1990-5095	19901011
CZ 281525	B6	19961016	CZ 1990-4950	19901011
SK 280209	B6	19990910	SK 1990-4950	19901011
US 5532378	A	19960702	US 1994-356933	19941215
US 5625074	A	19970429	US 1996-632984	19960416
PRIORITY APPLN. INFO.:			DE 1989-3934081	A 19891012
			DE 1988-3815765	A 19880509
			US 1989-337775	B2 19890413
			US 1990-556052	A3 19900720
			EP 1990-118750	A3 19900929
			US 1991-692439	A3 19910429
			US 1991-816365	A3 19911230
			US 1993-31426	A3 19930315
			US 1994-356933	A3 19941215
OTHER SOURCE(S):			MARPAT 115:71618	
GI				

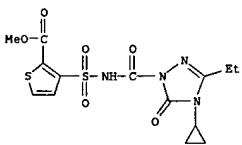
L4 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)



AB The title compds. [I; R1 = H, HO, amino, (un)substituted (cyclo)alkyl, (di)alkylamino, alkenyl(oxy), alkynyl, alkoxy, aryl(alkyl); R2 = H, HO, HS, amino, (un)substituted (cyclo)alkyl, aryl, (di)alkylamino, etc.; R = R3SO<sub>2</sub>NHCO; R3 = (un)substituted (cyclo)alkyl, cycloalkenyl, alkoxy, (di)alkylamino, aryl(alkyl), heteroaryl] (II) and their salts, were prepd. as herbicides (no data), e.g., by amidation of triazolinones I; [R = CO<sub>2</sub>; Z = halo, (ar)alkoxy, aryloxy] with sulfonamides R3SO<sub>2</sub>NH<sub>2</sub>. Also claimed are I (R = H; R1 = (un)substituted (cyclo)alkyl, alkenyl, alkoxy, dialkylamino; R2 = H, (un)substituted (cyclo)alkyl, alkoxy, aralkyl; R1 .noteq. R2 = H). Thus, 1.8 g DBU were added to a stirred mixt. of 3.0 g 5-ethyl-4-methyl-2-phenoxy-carbonyl-2,4-dihydro-3H-1,2,4-triazol-2-one and 2.5 g 2-chloro-6-methylbenzenesulfonamide in 60 mL MeCN, and the whole stirred 2 h at 20.degree. to give 3.2 g title compd. (I; R = 2,6-ClMeC<sub>6</sub>H<sub>3</sub>SO<sub>2</sub>NHCO, R1 = Me, R2 = Et). Over 100 II were prepd. in the systemic and protective activity against Pyricularia on rice of several I expressed in qual. terms.

IT 135280-45-4P 135280-50-1P  
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (prepn. of, as herbicide)

RN 135280-45-4 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(4-cyclopropyl-3-ethyl-4,5-dihydro-5-oxo-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)



RN 135280-50-1 CAPLUS  
 CN 2-Thiophenecarboxylic acid, 3-[[[(4-cyclopropyl-4,5-dihydro-5-oxo-3-propyl-1H-1,2,4-triazol-1-yl)carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)

L4 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2002 ACS (Continued)

